

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NM-21-AD; Amendment 39-12675; AD 2002-05-07]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-100, -200, -200C, -300, -400, and -500 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. For certain airplanes, this action requires repetitive inspections for discrepancies of the rear spar attachments and cracks in the upper flange of the inboard track at the rear spar attachment of each outboard flap, and eventual rework of the flap track assembly and rear spar attachments, including replacement of the flap track with a new track, if necessary. For all airplanes, this action requires repetitive inspections for cracks in the upper flange of the inboard flap tracks at the rear spar attachments, and corrective action, if necessary. The actions specified by this AD are intended to find and fix discrepancies of the inboard tracks of the outboard flaps, which could result in loss of the outboard trailing edge flaps and consequent reduced controllability of the airplane. These actions are intended to address the identified unsafe condition.

DATES: Effective April 22, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 22, 2002.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: James Blilie, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2131; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes was published as a supplemental notice of proposed rulemaking (NPRM) in the Federal Register on August 2, 2001 (66 FR 40162). That action proposed to expand the applicability and remove the optional terminating action of the proposed AD. For certain airplanes, that action proposed to require new repetitive inspections for discrepancies of the rear spar attachments and cracks in the upper flange of the inboard track at the rear spar attachment of each outboard flap, and eventual rework of the flap track assembly and rear spar attachments, including replacement of the flap track with a new track, if necessary. For all airplanes, that action proposed to require repetitive inspections for cracks in the upper flange of the inboard flap tracks at the rear spar attachments, and corrective action, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request to Clarify Compliance Time

Several commenters note that in paragraphs (a) and (c)(1) of the Supplemental NPRM, the phrase "whichever occurs later," is used when only one compliance time is given. They ask that the compliance time be clarified.

The FAA concurs that clarification is required and, accordingly, has deleted the phrase "whichever occurs later" from paragraphs (a) and (c)(1) of this final rule.

Request to Clarify Which Airplanes Are Subject to Paragraph (a) of the Supplemental NPRM

One commenter points out that paragraph (a) of the Supplemental NPRM is applicable to all Model 737 series airplanes with line numbers 1 through 1585, whereas the service bulletin cited is effective only for the Model 737-100, -200, and -200C series airplanes. The commenter requests clarification as to the applicability of paragraph (a) of the AD.

The FAA concurs that clarification is necessary. Our intent was to have paragraph (a) of this AD apply only to the Model 737-100, -200, and -200C series airplanes. Accordingly, we have inserted the phrase "[for] Model 737-100, -200, and -200C series [airplanes]" in paragraph (a) of this final rule to specify the correct applicability.

Another commenter suggests that the part of paragraph (a) of the Supplemental NPRM which reads "* * * and airplanes with [line numbers] L/N 870 through 1585 on which the original flap tracks have been replaced with certain tracks as specified in Boeing Service Bulletin 737-57A1249, Revision 1 * * *" could be interpreted in two different ways. The commenter requests clarification.

The FAA agrees that the sentence could be misunderstood and, accordingly, has revised the language in paragraph (a) of this final rule to read "* * * and those airplanes with L/Ns 870 through 1585 inclusive, which either still have their original flap tracks or which have had the original flap tracks replaced with certain tracks as specified in Boeing Service Bulletin 737-57A1249, Revision 1 * * *".

Request to Clarify Which Flap Tracks Are Affected

One commenter states that the Supplemental NPRM does not specify which flap tracks are affected by paragraph (a) of the AD. The commenter requests that specific part numbers and dash numbers be listed in the final rule.

The FAA does not concur. The intent of paragraph (a) of this AD is to include all flap tracks for Model 737-100, -200, and -200C series airplanes with L/Ns 1 through 1585, except for certain flap tracks which are specifically excluded in the effectivity of the service bulletin. Accordingly, no change has been made to the final rule in this regard.

Request to Correct Reference to Part of Accomplishment Instructions

One commenter indicates that paragraph (d) of the Supplemental NPRM, which requires repetitive inspections for cracking in the upper flange of the inboard track of each outboard flap at the rear spar attachments, should refer to Part I of the Accomplishment Instructions rather than Part II of those instructions.

The FAA concurs. The original reference in the Supplemental NPRM to Part II was an error. The language in paragraph (d) of this final rule has been changed accordingly.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 2,890 Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 1,100 airplanes of U.S. registry will be affected by this AD.

It will take approximately 4 work hours per airplane to accomplish the required inspections at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of the required inspections on U.S. operators is estimated to be \$264,000, or \$240 per airplane.

It will take approximately 12 work hours per airplane to accomplish the required rework at an average labor rate of \$60 per work hour. Required parts will cost approximately \$532. Based on these figures, the cost impact of the required rework on U.S. operators is estimated to be \$1,377,200, or \$1,252 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the

Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39--AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-05-07 Boeing: Amendment 39-12675. Docket 99-NM-21-AD.

Applicability: Model 737-100, -200, -200C, -300, -400, and -500 series airplanes; certificated in any category; EXCEPT airplanes on which any replacement flap tracks were installed according to Boeing Service Bulletin 737-57-1203, dated November 15, 1990, or production equivalent.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

Note 2: Airplanes modified according to Boeing Service Bulletin 737-57-1065 are subject to additional work as described in this AD and in Boeing Service Bulletin 737-57A1249, Revision 1, dated June 1, 2000.

To find and fix discrepancies of the inboard tracks of the outboard flaps, which could result in loss of the outboard trailing edge flaps and consequent reduced controllability of the airplane, accomplish the following:

Initial Inspections

(a) For Model 737-100, -200, and -200C series airplanes with line numbers (L/N) 1 through 869 inclusive, and those airplanes with L/Ns 870 through 1585 inclusive, which either still have their original flap tracks or which have had the original flap tracks replaced with certain tracks as specified in Boeing Service Bulletin 737-57A1249, Revision 1, including Appendix A, dated June 1, 2000: Within 6 months after the effective date of this AD, accomplish the requirements of paragraphs (a)(1) and (a)(2) of this AD, according to Boeing Service Bulletin 737-57A1249, Revision 1, including Appendix A, dated June 1, 2000.

(1) Perform a detailed visual inspection for discrepancies (e.g., corrosion, or missing, damaged, or migrated anti-fret strips and tapered shims) of the rear spar attachments of the flap tracks.

(2) Perform detailed visual, high frequency eddy current (HFEC), and ultrasonic inspections for cracking in the upper flange of the inboard track of each outboard flap at the rear spar attachments.

Note 3: Inspections and rework accomplished according to Boeing Alert Service Bulletin 737-57A1249, including Appendix A, dated December 16, 1999, is considered acceptable for compliance with the applicable action specified in this AD.

Note 4: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Repetitive Inspections

(b) For airplanes subject to paragraph (a) of this AD: If no discrepancy is found during any inspection required by paragraph (a) of this AD, thereafter, repeat the inspections specified in paragraph (a) of this AD at intervals not to exceed 9 months, until the actions required by paragraph (c) of this AD have been accomplished.

Rework

(c) For airplanes subject to paragraph (a) of this AD: At the applicable time specified in paragraph (c)(1) or (c)(2) of this AD, accomplish rework of the flap track assembly and aft flap track attachments (including removal of the flap track; a detailed visual inspection for a missing, damaged, or migrated anti-fret strip and tapered shim of the rear spar attachments of the flap track; replacement of the anti-fret strip with a new aluminum anti-fret strip (or installation of an aluminum strip if no strip is installed), as applicable; replacement of the tapered shim with a new shim (or installation of a shim if no shim is installed); eddy current and ultrasonic inspections for fatigue cracking of the flap tracks; a detailed visual inspection for corrosion of the flap tracks; and rework of attachment holes), including replacement of the flap tracks, as applicable, by accomplishing all actions specified in Part II of the Accomplishment Instructions of Boeing Service Bulletin 737-57A1249, Revision 1, including Appendix A, dated June 1, 2000. Do these actions according to that service bulletin, except as provided by paragraph (e) of this AD. Accomplishment of the actions required by this paragraph constitutes terminating action for the repetitive inspections required by paragraph (b) of this AD.

(1) If no discrepancy is found during any inspection required by paragraph (a) or (b) of this AD: Do the rework within 24 months after the effective date of this AD.

(2) If any discrepancy is found during any inspection required by paragraph (a) or (b) of this AD: Do the rework prior to further flight.

Repetitive Inspections

(d) For all airplanes: At the applicable time specified in paragraph (d)(1) or (d)(2) of this AD, and thereafter at least every 24 months, perform detailed visual, HFEC, and ultrasonic inspections for cracking in the upper flange of the inboard track of each outboard flap at the rear spar attachments according to Part I of the Accomplishment Instructions of Boeing Service Bulletin 737-57A1249, Revision 1, including Appendix A, dated June 1, 2000.

(1) For airplanes subject to paragraph (c) of this AD, do the inspections within 10 years after accomplishment of the rework according to paragraph (c) of this AD.

(2) For airplanes other than those identified in paragraph (d)(1) of this AD, do the inspections within 10 years since the airplane's date of manufacture, or within 6 months after the effective date of this AD, whichever occurs later.

Repair Instructions and Exception to Procedures in Service Information

(e) If any discrepancy is found during any action required by paragraphs (a), (b), or (c) of this AD, and the service bulletin specifies to contact Boeing for appropriate action; OR if any discrepancy is found during inspections according to paragraph (d) of this AD: Prior to further flight, repair according to a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or according to data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative (DER) who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

Alternative Methods of Compliance

(f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 5: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(g) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(h) Except as provided by paragraph (e) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 737-57A1249, Revision 1, including Appendix A, dated June 1, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(i) This amendment becomes effective on April 22, 2002.

Issued in Renton, Washington, on March 8, 2002.
Kalene C. Yanamura,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
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